

REMARKS

Claims 1-16 are pending in this application.

Claims 1-16 have been amended in accordance with the Objections noted in the Action, and Claim 1 has been further amended in accordance with 35 U.S.C. § 112. In accordance with the Action, Claims 3-6, and 11-14 have been further amended to be in independent form including all of the features of the base claim and any intervening claims, and therefore should be deemed allowable. Claims 17-22 have been added without the addition of new matter.

Regarding the Claim objections to Claims 6-8, and 14-16 as stated in the Action, it appears that the previously filed preliminary amendment which removed the multiple dependencies for these claims (filed along with the original application on July 24, 2000) was not examined along with the original specification.

Claims 1-2, 7-10, and 15-16 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Yoshikazu et al. ("Yoshikazu") (EP 0836304 A2). Applicant respectfully traverses these rejections, and requests allowance thereof in the pending application for the following reasons.

The Claims are Patentable Over the Cited References

Claims 1-2, 7-10, and 15-16 are not anticipated by Yoshikazu

Claims 1-2, 7-10, and 15-16 stand rejected under § 102(e) in

view of Yoshikazu. Applicants strongly contend that Yoshikazu fails to disclose the features recited in these claims as amended such as estimating transmitted modulation signals by demodulating sub-carriers for a block of samples under consideration, wherein said estimation step comprising correcting the changes in position of an analysis window with respect to the transmitted signal without changing the receiver sampling frequency.

Yoshikazu fails to disclose the recited features. In direct contrast, Yoshikazu solely discloses using the prior art method (as disclosed in the present application) of correcting for the transmitter/receiver sampling frequency deviation by slaving the receiver sampling frequency to the transmitter sampling frequency by changing the receiver sampling frequency to match based on a feedback loop that continually measures the deviation error. (See Figure 12; page 11, lines 20-22, 32-36; page 15, lines 30-32; page 16, lines 17-24). Specifically, Yoshikazu states that "...an object of the present invention to detect an error amount of sampling frequency...and to perform control to make the error amount zero...detecting the frequency error of the sampling pulse on the basis of the change amount of barycentric position, and controlling the frequency of the sampling pulse to make the error zero..." (see page 11, lines 20-22, 35-36).

Thus, throughout the disclosure, Yoshikazu expressly discloses using a feedback loop to change the receiver sampling frequency to

reduce the deviation error to zero in contrast to the recited feature of estimating the transmitted modulation signals by correcting the changes without changing the receiver sampling frequency. Applicant strongly contends that changing the receiver sampling frequency using a feedback loop to reduce the deviation between transmitter/receiver sampling frequency to zero for estimating transmitted modulation signals as disclosed by Yoshikazu is significantly different from estimating transmitted modulation signals without changing the receiver sampling frequency as recited.

Therefore, Yoshikazu fails to disclose estimating transmitted modulation signals by demodulating sub-carriers for a block of samples under consideration, wherein said estimation step comprising correcting the changes in position of an analysis window with respect to the a transmitted signal without changing the receiver sampling frequency as recited making the claimed invention patentably distinct from the cited reference.

Conclusion

In view of the amendments and remarks submitted above, it is respectfully submitted that all of the remaining claims are allowable and a Notice of Allowance is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully

requested to contact Clint Gerdine (Reg. No. 41,035) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By Clint Gerdine
Clint A. Gerdine, #41,035

CAG:tm
0054-0216P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

ABSTRACT

~~Method of transmitting data on multiple carriers from a transmitter to a receiver and receiver designed to implement the said method.~~

A 1
The present invention concerns a A method of transmitting data on multiple carriers from a transmitter to a receiver is disclosed, the said method consisting, on ~~the~~ a transmitter side, of binary to signal coding of the data to be transmitted so as to form modulation signals, of modulating a plurality of sub-carriers with the said modulation signals as to form symbols, referred to as OFDM symbols, and then of transmitting, over ~~the~~ a channel between the ~~the~~ said transmitter and ~~the~~ a receiver, the said OFDM symbols at a rate which is related to a sampling frequency referred to as the transmitter sampling frequency, and, on the receiver side, of determining, from a clock signal at a frequency related to a sampling frequency referred to as the receiver sampling frequency, an analysis window for the signal received from the transmitter so as to form a block of samples, and of estimating the said transmitted modulation signals by demodulating the said sub-carriers for the ~~the~~ said block of samples under consideration.

~~The said estimation step is designed to correct the changes in~~

the position of the analysis window with respect to the said
transmitted signal.

Figure 3

